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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/750,592	12/28/2000	Bhupal Kanaiyalal Dharia	6057-54800	6761

35690 7590 01/23/2008

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EXAMINER	
RAMPURIA, SHARAD K	
ART UNIT	**PAPER NUMBER**
2617	
MAIL DATE	**DELIVERY MODE**
01/23/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/750,592	DHARIA ET AL.	
	Examiner	Art Unit	
	Sharad Rampuria	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 October 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6-15,25-28,30-33,37-39,42,43,45,49-53 and 56-94* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6-15,25-28,30-33,37-39,42,43,45,49-53 and 56-94* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Disposition of the claims

I. The current office-action is in amendment Filed on 10/30/2007.

Accordingly, Claims 5, 16-24, 29, 34-36, 40-41, 44, 46-48, & 54-55 are cancelled and Claims 1-4, 6-15, 25-28, 30-33, 37-39, 42-43, 45, 49-53, 56-94 are imminent for further assessment as follows:

Claim Rejections - 35 USC § 103

II. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-4, 8-15, 25-27, 30-33, 37-38, 42-43, 45, 49-52, 57-94 are rejected under 35 U.S.C. 103(a) as being unpatentable over McLaughlin et al. (US 6212387) and Love et al. (US 6934275) further in view of Worley. III et al. (US 5805576).

Regarding claim 1, McLaughlin disclosed a communication system for communication using wireless signals including down-link signals to and up-link signals from mobile stations, comprising, (Abstract)

Measurement means for forming measurements of said wireless signals, (Col.10; 63 - Col.11; 3)

McLaughlin fails to disclose a plurality of transceiver stations having broadcast channels and dedicated channels carried by said wireless signals, processor means to process said measurements to determine preferred ones of said transceiver stations for particular dedicated channels for a particular mobile station, and control means to dynamically select said preferred ones of said transceiver stations to provide said particular dedicated channels for said particular mobile station separately from one of said transceiver stations providing particular broadcast channels for said particular mobile station. However, Love teaches in an analogous art, that a plurality of transceiver stations having broadcast channels and dedicated channels carried by said wireless signals, processor means to process said measurements to determine preferred ones of said transceiver stations for particular dedicated channels for a particular mobile station (Col.2; 50-61)

Control means to dynamically switch between said preferred ones of said transceiver stations to provide said particular dedicated channels for said particular mobile station separately from one of said transceiver stations providing particular broadcast channels for said particular mobile station. (Col.2; 50-61, Col.3; 7-21 and further clarification; Col.4; 44-49) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include a plurality of transceiver stations having broadcast channels and dedicated channels carried by said wireless signals, processor means to process said measurements to determine preferred ones of said transceiver stations for particular dedicated channels for a particular mobile station, and control means to dynamically switch between said preferred ones of said transceiver stations to

provide said particular dedicated channels for said particular mobile station separately from one of said transceiver stations providing particular broadcast channels for said particular mobile station in order to provide a method and apparatus that provide a separate dedicated channel and shared control channel instead of a single control channel as employed in the conventional systems.

The above combination doesn't disclose specifically, wherein a radio resource used for said particular dedicated channels for said particular mobile station remains unchanged as a result of dynamically switching between said preferred ones of said transceiver stations. However, Worley teaches in an analogous art, that wherein a radio resource used for said particular dedicated channels for said particular mobile station remains unchanged as a result of dynamically switching between said preferred ones of said transceiver stations (e.g. As in FIG. 4, the time lines T1 and T2 refer to communications within a TDMA implementation with a fixed timing offset between forward and reverse channel communications. The time line T3 refers to an offset which could be defined between the collector time base for receiving communications from users and the time base for sending those communications back to the aggregator. If the aggregator time base TB.sub.A were set equal to the broadcaster time base TB.sub.B, this offset would correspond to the collector time base offset .DELTA.C1 and .DELTA.C2 plus any additional time added to allow for signal processing at the collectors; Col.21; 34-45, which ***corresponds*** to the applicant's specification filed on 12/28/2000; ¶ 0014-0017) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include wherein a radio resource used for said particular dedicated channels for said particular mobile station remains unchanged as a result of dynamically switching between said preferred ones of

said transceiver stations in order to improve wireless communication systems which overcome the inherent capacity, cell size, and other limitations of conventional cellular systems.

Regarding claim 2, McLaughlin disclosed The communication system of claim 1 wherein said measurement means measures said up-link signals from said particular mobile station to form said measurements. (Col.9; 29-56)

Regarding claim 3, McLaughlin disclosed The communication system of claim 2 wherein, said control means is responsive to said processor information for changing said dedicated channels as frequently as a signal change time determined by a frequency of said up-link signals. (Col.11; 4-15)

Regarding claim 4, McLaughlin disclosed all the particulars of the claim except change time is approximately an up-link signal frame rate of said up-link signals. However, Love teaches in an analogous art, that The communication system of claim 3 wherein said change time is approximately an up-link signal frame rate of said up-link signals. (Col.2; 50-61, Col.3; 7-21 and further clarification; Col.4; 44-49)

Regarding claim 8, McLaughlin disclosed The communication system of claim 1 wherein said zone manager means is formed of a plurality of zone managers, one for each of said transceiver stations. (Col.12; 43-51)

Regarding claim 9, McLaughlin disclosed The communication system of claim 8 wherein said zone managers are co-located with said transceiver stations at macrodiverse locations. (Col.12; 53-59)

Regarding claim 10, McLaughlin disclosed he communication system of claim 9 wherein said zone managers are interconnected with each other forming a network. (Col.9; 29-56)

Regarding claim 11, McLaughlin disclosed The communication system of claim 8 wherein two or more of said zone managers are co-located at a common location. (Col.9; 29-56)

Regarding claim 13, McLaughlin disclosed all the particulars of the claim except particular dedicated channels for said particular mobile station are dynamically switched among said one or more assistant zone managers and said host zone manager. However, Love teaches in an analogous art, that The communication system of claim 8 wherein said plurality of zone managers include a host zone manager and one or more assistant zone managers, said host zone manager operative to communicate over said particular broadcast channels with said particular mobile station while said particular dedicated channels for said particular mobile station are dynamically switched among said one or more assistant zone managers and said host zone manager. (Col.2; 50-61, Col.3; 7-21 and further clarification; Col.4; 44-49)

Regarding claim 14, McLaughlin disclosed The communication system of claim 13 wherein said measurement means includes a plurality of measurement units, one for each of said zone managers, where each measurement unit measures up-link traffic signals from said particular mobile station to form ones of said measurements as unit measurements. (Col.12; 34-59)

Regarding claim 15, McLaughlin disclosed all the particulars of the claim except processor means for a host zone manager receives a plurality of said unit measurements and operates for processing said unit measurements to provide host processor information for determining preferred ones of said broadcasters and preferred ones of said collectors for said particular dedicated channels for said particular mobile station, said control means dynamically selects said particular dedicated channels for said particular mobile station by selecting said preferred ones of said broadcasters to provide particular down-link signals and dynamically selects said preferred ones of said collectors to receive particular up-link signals for said particular mobile station. However, Love teaches in an analogous art, that The communication system of claim 13 wherein, said transceiver stations include a plurality of macro-diverse broadcasters distributed at macro-diverse broadcaster locations for broadcasting said down-link signals and include a plurality of macro-diverse collector means distributed at macro-diverse collector locations for receiving said up-link signals and providing received signals for said particular mobile station, said Measurement means includes a plurality of measurement units, one for each of said zone managers, where each measurement unit measures up-link signals from said particular mobile station to form unit measurements representing the quality of said received

signals at one of said macrodiverse collector locations, said processor means for a host zone manager receives a plurality of said unit measurements and operates for processing said unit measurements to provide host processor information for determining preferred ones of said broadcasters and preferred ones of said collectors for said particular dedicated channels for said particular mobile station, (Col.2; 50-61) said

Control means dynamically selects said particular dedicated channels for said particular mobile station by selecting said preferred ones of said broadcasters to provide particular down-link signals and dynamically selects said preferred ones of said collectors to receive particular up-link signals for said particular mobile station. (Col.2; 50-61, Col.3; 7-21 and further clarification; Col.4; 44-49)

Regarding claim 25, McLaughlin disclosed The communication system of claim 1 wherein said manager means is formed of a plurality of zone managers, one for each of said transceiver stations, each particular one of said zone managers having, control means including, a resource manager for managing available resources in said communication system, an airlink controller for controlling the radio channels in said communication system, interface means for providing interfaces for said particular one of said zone managers. (Col.12; 34-59)

Regarding claim 26, McLaughlin disclosed The communication system of claim 25 wherein said interface means includes a zone_manager-to-zone_manager interface manager for controlling zone manager links among said zone managers. (Col.12; 34-59)

Regarding claim 27, McLaughlin disclosed The communication system of claim 25 wherein said interface means includes a transceiver interface for controlling a transceiver link from said particular one of said zone managers to a corresponding transceiver station. (Col.12; 34-59)

Regarding claim 30, McLaughlin disclosed The communication system of claim 25 wherein one or more of said zone managers is integrated into one or more of said transceiver stations. (Col.9; 29-56)

Regarding claim 31, McLaughlin disclosed The communication system of claim 1 wherein said control means includes broadcaster commands for controlling the down-link signals to each of selected ones of said mobile stations and collector commands for controlling the plurality of macro-diverse collectors for changing the up-link signals for each of other selected ones of said mobile stations. (Col.9; 29-56)

Regarding claim 32, McLaughlin disclosed The communication system of claim 1 wherein said wireless signals employ multiple access protocols. (Col.9; 15-21)

Regarding claim 33, McLaughlin disclosed The communication system of claim 32 wherein said wireless signals employ TDMA, CDMA, SDMA, FDMA protocols. (Col.9; 15-21)

Regarding claim 37, McLaughlin disclosed The communication system of claim 1 wherein said transceiver stations communicate over a region containing one or more zones and said measurement means includes measurements from one or more collectors in said transceiver stations. (Col.12; 34-59)

Regarding claim 38, McLaughlin disclosed The communication system of claim 37 wherein said measurements from one or more collectors include radio link conditions between a mobile station and said one or more collectors. (Col.12; 34-59)

Regarding claim 42, McLaughlin disclosed The communication system of claim 37 wherein said measurements from one or more collectors are processed in the zone manager means related to said one or more base transceiver stations. (Col.9; 29-56)

Regarding claim 43, McLaughlin disclosed The communication system of claim 1 wherein said zone manager means includes a host zone manager and one or more assistant zone managers and said host zone manager processes said measurements from the one or more assistant zone manager means to provide processed measurements. (Col.12; 34-59)

Regarding claim 46, McLaughlin disclosed The communication system of claim 44 wherein said processor information includes timing and synchronization information. (Col.11; 4-15)

Regarding claim 49, McLaughlin disclosed The communication system of claim 1 wherein said transceiver stations include broadcaster controllers for controlling broadcaster transmitters and said broadcaster controller selects one or more broadcaster transmitters for forward communications with mobile stations based on said processor information. (Col.9; 29-56)

Regarding claim 50, McLaughlin disclosed In a communication system for communication using wireless signals including down-link signals to and up-link signals from mobile stations, the method comprising, transmitting, from a plurality of transceiver stations, broadcast channels and dedicated channels over said wireless signals, (Abstract)

McLaughlin fails to disclose forming measurements of said wireless signals with measurement means, with zone manager means, processing, with processor means, said measurements forming processor information to determine preferred ones of said transceiver stations for particular dedicated channels for a particular mobile station, dynamically selecting, with control means, said preferred ones of said transceiver stations to provide said particular dedicated channels for said particular mobile station separately from one of said transceiver stations providing particular broadcast channels for said particular mobile station. However, Love teaches in an analogous art, that forming measurements of said wireless signals with measurement means, with zone manager means, processing, with processor means, said measurements forming processor information to determine preferred ones of said transceiver stations for particular dedicated channels for a particular mobile station,

Dynamically selecting, with control means, said preferred ones of said transceiver stations to provide said particular dedicated channels for said particular mobile station separately from one of said transceiver stations providing particular broadcast channels for said particular mobile station. (Col.2; 50-61, Col.3; 7-21 and further clarification; Col.4; 44-49)

The above combination doesn't disclose specifically, wherein a radio resource used for said particular dedicated channels for said particular mobile station remains unchanged as a result of dynamically switching between said preferred ones of said transceiver stations. However, Worley teaches in an analogous art, that wherein a radio resource used for said particular dedicated channels for said particular mobile station remains unchanged as a result of dynamically switching between said preferred ones of said transceiver stations (e.g. As in FIG. 4, the time lines T1 and T2 refer to communications within a TDMA implementation with a fixed timing offset between forward and reverse channel communications. The time line T3 refers to an offset which could be defined between the collector time base for receiving communications from users and the time base for sending those communications back to the aggregator. If the aggregator time base TB.sub.A were set equal to the broadcaster time base TB.sub.B, this offset would correspond to the collector time base offset .DELTA.C1 and .DELTA.C2 plus any additional time added to allow for signal processing at the collectors; Col.21; 34-45, which ***corresponds*** to the applicant's specification filed on 12/28/2000; ¶ 0014-0017)

Regarding claim 51, McLaughlin disclosed In the communication system of claim 50, measuring said up-link signals from said particular mobile station to form said measurements. (Col.9; 29-56)

Regarding claim 52, McLaughlin disclosed In the communication system of claim 50, changing said dedicated channels as frequently as a signal change time determined by a frequency of said up-link signals. (Col.11; 4-15)

Regarding claim 57, McLaughlin disclosed A communication system for providing wireless communications with mobile devices, the system comprising: (Abstract)

McLaughlin fails to disclose a plurality of transceiver stations to communicate with mobile devices, wherein the plurality of transceiver stations communicate via broadcast channels and dedicated channels, wherein one of the plurality of transceiver stations having best radio access to a first mobile device will be designated a host transceiver station for the first mobile device, and wherein the host transceiver will provide the broadcast channels for communication with the first mobile device; and a plurality of processors associated with said plurality of transceivers to manage communications, wherein one of the plurality of processors associated with the host transceiver station will be a host zone manager for the first mobile device, wherein the host processor is capable of dynamically selecting one or more of the plurality of transceiver stations to provide the dedicated channels for communications with the first mobile device based on signal measurements, wherein the dynamic selection does not affect the host transceiver providing the broadcast channels. However, Love teaches in an analogous art, that a plurality of transceiver stations to communicate with mobile devices, wherein the plurality of transceiver stations communicate via broadcast channels and dedicated channels, wherein one of the plurality of transceiver stations having best radio access to a first mobile device will be

designated a host transceiver station for the first mobile device, and wherein the host transceiver will provide the broadcast channels for communication with the first mobile device; (Col.13; 1-64) and a plurality of processors associated with said plurality of transceivers to manage communications, wherein one of the plurality of processors associated with the host transceiver station will be a host zone manager for the first mobile device, wherein the host processor is capable of dynamically selecting one or more of the plurality of transceiver stations to provide the dedicated channels for communications with the first mobile device based on signal measurements, wherein the dynamic selection does not affect the host transceiver providing the broadcast channels. (Col.2; 50-61, Col.3; 7-21 and further clarification; Col.4; 44-49)

The above combination doesn't disclose specifically, wherein a radio resource used for said particular dedicated channels for said particular mobile station remains unchanged as a result of dynamically switching between said preferred ones of said transceiver stations. However, Worley teaches in an analogous art, that wherein a radio resource used for said particular dedicated channels for said particular mobile station remains unchanged as a result of dynamically switching between said preferred ones of said transceiver stations (e.g. As in FIG. 4, the time lines T1 and T2 refer to communications within a TDMA implementation with a fixed timing offset between forward and reverse channel communications. The time line T3 refers to an offset which could be defined between the collector time base for receiving communications from users and the time base for sending those communications back to the aggregator. If the aggregator time base TB.sub.A were set equal to the broadcaster time base TB.sub.B, this offset would correspond to the collector time base offset .DELTA.C1 and .DELTA.C2 plus any

additional time added to allow for signal processing at the collectors; Col.21; 34-45, which ***corresponds*** to the applicant's specification filed on 12/28/2000; ¶ 0014-0017)

Regarding claim 58, McLaughlin disclosed The system of claim 57, wherein the signal measurements are measurements of up-link signals from the first mobile device. (Col.9; 29-56)

Regarding claim 59, McLaughlin disclosed The system of claim 57, wherein said host processor receives signal measurements from at least some subset of said plurality of processors, wherein the signal measurements are measurements of uplink signals from the first mobile station; processes the signal measurements received; and dynamically selects, based on the processed signal measurements, the one or more of said plurality of transceivers and the associated processors to provide the dedicated channels for the first mobile device. (Col.10; 5-18)

Regarding claim 60, McLaughlin disclosed The system of claim 59, wherein said host processor also instructs the one or more of said plurality of transceivers and the associated processors that they are providing the dedicated channels for the first mobile device. (Col.9; 29-56)

Regarding claim 61, McLaughlin disclosed The system of claim 57, wherein said plurality of processors are connected together. (Col.10; 44-67)

Regarding claim 62, McLaughlin disclosed The system of claim 58, wherein said processor may dynamically change the transceiver station providing the dedicated channels as frequently as frequency of the up-link signals. (Col.10; 5-18)

Regarding claim 63, McLaughlin disclosed The system of claim 57, wherein a first set of transceivers can provide uplink communications and a second set of transceivers can provide downlink communications. (Col.10; 44-67)

Regarding claim 64, McLaughlin disclosed The system of claim 57, wherein a first set of transceivers can provide traffic signals and a second set of transceivers can provide control signals. (Col.10; 44-67)

Regarding claim 65, McLaughlin disclosed A processor for use in a communication system for providing wireless communications with mobile stations (col.10; 44-67), the processor comprising:

a transceiver interface to receive signals from an associated transceiver and to provide instructions to the associated transceiver, wherein the signals received from the associated transceiver include uplink signals from mobile devices; (col.10; 44-67)

a controller interface to communicate with a controller, wherein the communications with the controller include assignment of a host transceiver and host processor for a particular mobile device,, wherein the host transceiver communicates with the particular mobile device via broadcast channels; (col.10; 44-67)

McLaughlin fails to disclose a processor interface to communicate with a plurality of other processors, wherein the communications related to the particular mobile device include receipt of measurement signals related to the particular mobile station and transmission of instructions if said processor is the host processor, and includes receipt of instructions from a host processor and transmission of measurement signals associated with the particular mobile station to the host processor if said processor is not the host processor; a signal processor, active for the particular mobile device when said processor is the host processor, to process the measurement signals received from at least some subset of the plurality of other processors and the measurement signal from said processor; and a selector to dynamically select an assistant processor and associated assistant transceiver to provide communications with the particular mobile device via dedicated channels based on the processed measurement signals. However, Love teaches in an analogous art, that a processor interface to communicate with a plurality of other processors, wherein the communications related to the particular mobile device include receipt of measurement signals related to the particular mobile station and transmission of instructions if said processor is the host processor, and includes receipt of instructions from a host processor and transmission of measurement signals associated with the particular mobile station to the host processor if said processor is not the host processor; a signal processor, active for the particular mobile device when said processor is the host processor, to process the measurement signals received from at least some subset of the plurality of other processors and the measurement signal from said processor; and a selector to dynamically select an assistant processor and associated assistant transceiver to provide communications with the particular

mobile device via dedicated channels based on the processed measurement signals. (Col.2; 50-61, Col.3; 7-21 and further clarification; Col.4; 44-49)

The above combination doesn't disclose specifically, wherein a radio resource used for said particular dedicated channels for said particular mobile station remains unchanged as a result of dynamically switching between said preferred ones of said transceiver stations. However, Worley teaches in an analogous art, that wherein a radio resource used for said particular dedicated channels for said particular mobile station remains unchanged as a result of dynamically switching between said preferred ones of said transceiver stations (e.g. As in FIG. 4, the time lines T1 and T2 refer to communications within a TDMA implementation with a fixed timing offset between forward and reverse channel communications. The time line T3 refers to an offset which could be defined between the collector time base for receiving communications from users and the time base for sending those communications back to the aggregator. If the aggregator time base TB.sub.A were set equal to the broadcaster time base TB.sub.B, this offset would correspond to the collector time base offset .DELTA.C1 and .DELTA.C2 plus any additional time added to allow for signal processing at the collectors; Col.21; 34-45, which ***corresponds*** to the applicant's specification filed on 12/28/2000; ¶ 0014-0017)

Regarding claim 66, McLaughlin disclosed The processor of claim 65, wherein the measurement signals are measurements of up-link signals from the particular mobile device. (Col.9; 29-56)

Regarding claim 67, McLaughlin disclosed The processor of claim 65, wherein said selector may dynamically select as frequently as frequency of the up-link signals. (Col.10; 5-18)

Regarding claim 68, McLaughlin disclosed The processor of claim 65, wherein said processor may be the host processor for a first mobile device and an assistant processor for a second mobile device. (Col.9; 29-56)

Regarding claim 69, McLaughlin disclosed The processor of claim 65, wherein said processor interface for a host processor transmits instructions to an assistant processor to provide the dedicated channels for communication with the particular mobile device when said selector selects the associated assistant transceiver to provide communications with the particular mobile device via the dedicated channels. (Col.10; 5-18)

Regarding claim 70, McLaughlin disclosed all the particulars of the claim except wherein said processor interface for an assistant processor receives instructions from a host processor to provide the dedicated channels for communication with the particular mobile device when the host processor selects the associated assistant transceiver to communicate with the particular mobile device via the dedicated channels. However, Love teaches in an analogous art, that The processor of claim 65, wherein said processor interface for an assistant processor receives instructions from a host processor to provide the dedicated channels for communication with the particular mobile device when the host processor selects the associated assistant

transceiver to communicate with the particular mobile device via the dedicated channels. (Col.2; 50-61, Col.3; 7-21 and further clarification; Col.4; 44-49)

Regarding claim 71, McLaughlin disclosed The processor of claim 65, further comprising a resource manager for controlling radio frequencies of associated transceiver. (Col.10; 44-67)

Regarding claim 72, McLaughlin disclosed The processor of claim 65, wherein said host processor can select a first set of transceivers to provide uplink communications and a second set of transceivers to provide downlink communications. (Col.10; 5-18)

Regarding claim 73, McLaughlin disclosed The processor of claim 65, wherein said host processor can select a first set of transceivers can provide traffic signals and a second set of transceivers can provide control signals. (Col.10; 5-18)

Regarding claim 74, McLaughlin disclosed a communication system for communication using wireless signals including down-link signals to and up-link signals from mobile stations, comprising, a plurality of transceiver stations having broadcast channels and dedicated channels carried by said wireless signals, (Abstract, Col.10; 19-43, Col.11; 62-Col.12; 3)

McLaughlin doesn't disclose expressly, separately from one of said transceiver stations providing particular broadcast channels for said particular mobile station. However, Love teaches in an analogous art that preferred ones of said transceiver stations for particular dedicated

channels for a particular mobile station separately from one of said transceiver stations providing particular broadcast channels for said particular mobile station. (Col.2; 50-61, Col.3; 7-21 and further clarification; Col.4; 44-49)

The above combination doesn't disclose specifically, wherein a radio resource used for said particular dedicated channels for said particular mobile station remains unchanged as a result of dynamically switching between said preferred ones of said transceiver stations. However, Worley teaches in an analogous art, that wherein a radio resource used for said particular dedicated channels for said particular mobile station remains unchanged as a result of dynamically switching between said preferred ones of said transceiver stations (e.g. As in FIG. 4, the time lines T1 and T2 refer to communications within a TDMA implementation with a fixed timing offset between forward and reverse channel communications. The time line T3 refers to an offset which could be defined between the collector time base for receiving communications from users and the time base for sending those communications back to the aggregator. If the aggregator time base TB.sub.A were set equal to the broadcaster time base TB.sub.B, this offset would correspond to the collector time base offset .DELTA.C1 and .DELTA.C2 plus any additional time added to allow for signal processing at the collectors; Col.21; 34-45, which ***corresponds*** to the applicant's specification filed on 12/28/2000; ¶ 0014-0017)

Regarding claim 75, McLaughlin disclosed all the particulars of the claim except particular dedicated channels for said particular mobile station separately from one of said transceiver stations providing particular broadcast channels for said particular mobile station. However, Love teaches in an analogous art, that the communication system of claim 74, wherein

at least some of said transceivers are responsive to a selection of preferred ones of said transceiver to provide said particular dedicated channels for said particular mobile station separately from one of said transceiver stations providing particular broadcast channels for said particular mobile station. (Col.2; 50-61, Col.3; 7-21 and further clarification; Col.4; 44-49)

Regarding claim 76, McLaughlin disclosed the communication system of claim 75 wherein at least some of said transceivers are a component of a zone manager. (Col.12; 43-51)

Regarding claims 77-78, McLaughlin disclosed the communication system of claim 76 wherein said zone manager is capable of determining/selecting preferred ones of said transceiver. (Col.11; 62-Col.12; 3)

Regarding claims 80-84, McLaughlin disclosed the communication system of claim 75 wherein said at least some of said transceivers are further responsive to a dynamic selection of said preferred ones of said transceivers. (Col.11; 62-Col.12; 3, Col.10; 5-17)

Regarding claim 85, McLaughlin disclosed a method of operating a communication system for communication using wireless signals including downlink signals to and up-link signals from mobile stations, comprising, (Abstract, Col.10; 19-43, Col.11; 62-Col.12; 3)

McLaughlin doesn't disclose expressly, separately from one of said transceiver stations providing particular broadcast channels for said particular mobile station. However, Love teaches in an analogous art that preferred ones of said transceiver stations for particular dedicated

channels for a particular mobile station separately from one of said transceiver stations providing particular broadcast channels for said particular mobile station. (Col.2; 50-61, Col.3; 7-21 and further clarification; Col.4; 44-49)

The above combination doesn't disclose specifically, wherein a radio resource used for said particular dedicated channels for said particular mobile station remains unchanged as a result of dynamically switching between said preferred ones of said transceiver stations. However, Worley teaches in an analogous art, that wherein a radio resource used for said particular dedicated channels for said particular mobile station remains unchanged as a result of dynamically switching between said preferred ones of said transceiver stations (e.g. As in FIG. 4, the time lines T1 and T2 refer to communications within a TDMA implementation with a fixed timing offset between forward and reverse channel communications. The time line T3 refers to an offset which could be defined between the collector time base for receiving communications from users and the time base for sending those communications back to the aggregator. If the aggregator time base TB.sub.A were set equal to the broadcaster time base TB.sub.B, this offset would correspond to the collector time base offset .DELTA.C1 and .DELTA.C2 plus any additional time added to allow for signal processing at the collectors; Col.21; 34-45, which ***corresponds*** to the applicant's specification filed on 12/28/2000; ¶ 0014-0017)

Regarding claim 86, McLaughlin disclosed all the particulars of the claim except particular dedicated channels for said particular mobile station separately from one of said transceiver stations providing particular broadcast channels for said particular mobile station. However, Love teaches in an analogous art, that the method of claim 85, and further comprising;

selecting said preferred ones of said transceiver to provide said particular dedicated channels for said particular mobile station separately from one of said transceiver stations providing particular broadcast channels for said particular mobile station. (Col.2; 50-61, Col.3; 7-21 and further clarification; Col.4; 44-49)

Regarding claim 87, McLaughlin disclosed the method of claim 86, wherein said communication system includes at least one zone manager. (Col.12; 43-51)

Regarding claims 88-89, McLaughlin disclosed the method of claim 87, wherein said determining/selecting is performed by said zone manager at least in part. (Col.11; 62-Col.12; 3)

Regarding claim 90, McLaughlin disclosed all the particulars of the claim except particular dedicated channels for said particular mobile station separately from one of said transceiver stations providing particular broadcast channels for said particular mobile station. However, Love teaches in an analogous art, that the method of claim 86, wherein said selecting comprises: dynamically selecting said preferred ones of said transceivers to provide particular dedicated channels for a particular mobile station separately from said one of said transceivers to provide particular broadcast channels for said particular mobile station. (Col.2; 50-61, Col.3; 7-21 and further clarification; Col.4; 44-49)

Regarding claim 91, McLaughlin disclosed the method of claim 90, wherein said communication system includes zone managers that perform said dynamic selecting at least in part. (Col.11; 62-Col.12; 3)

Regarding claim 92, McLaughlin disclosed an apparatus for use in a communication system using wireless signals including downlink signals to and up-link signals from mobile stations, comprising, (Abstract, Col.14; 64-Col.15; 8)

McLaughlin doesn't disclose expressly, separately from one of said transceiver stations providing particular broadcast channels for said particular mobile station. However, Love teaches in an analogous art, that a processor, said processor adapted to determine preferred ones of said transceiver stations for particular dedicated channels for a particular mobile station separately from one of said transceiver stations providing particular broadcast channels for said particular mobile station. (Col.2; 50-61, Col.3; 7-21 and further clarification; Col.4; 44-49)

The above combination doesn't disclose specifically, wherein a radio resource used for said particular dedicated channels for said particular mobile station remains unchanged as a result of dynamically switching between said preferred ones of said transceiver stations. However, Worley teaches in an analogous art, that wherein a radio resource used for said particular dedicated channels for said particular mobile station remains unchanged as a result of dynamically switching between said preferred ones of said transceiver stations (e.g. As in FIG. 4, the time lines T1 and T2 refer to communications within a TDMA implementation with a fixed timing offset between forward and reverse channel communications. The time line T3 refers to an offset which could be defined between the collector time base for receiving communications

from users and the time base for sending those communications back to the aggregator. If the aggregator time base TB.sub.A were set equal to the broadcaster time base TB.sub.B, this offset would correspond to the collector time base offset .DELTA.C1 and .DELTA.C2 plus any additional time added to allow for signal processing at the collectors; Col.21; 34-45, which ***corresponds*** to the applicant's specification filed on 12/28/2000; ¶ 0014-0017)

Regarding claims 93-94, McLaughlin disclosed all the particulars of the claim except particular dedicated channels for said particular mobile station separately from one of said transceiver stations providing particular broadcast channels for said particular mobile station. However, Love teaches in an analogous art, that the method of claim 92, wherein said processor is further adapted to dynamically select said preferred ones of said transceivers to provide particular dedicated channels for a particular mobile station separately from said one of said transceivers to provide particular broadcast channels for said particular mobile station. (Col.2; 50-61, Col.3; 7-21 and further clarification; Col.4; 44-49)

Claims 6-7, 18-19, & 53-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over McLaughlin et al. & Love et al., Worley further in view of Chavez et al.

Regarding claim 6, The above combination disclosed all the particulars of the claim except change time is less than 1 second. However, Chavez teaches in an analogous art, that The communication system of claim 3 wherein said change time is less than 1 second. (Col.5; 12-16) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention

to include change time is less than 1 second in order to provide improvement in cell boundary control with reduced time consumption.

Regarding claim 7, The above combination disclosed all the particulars of the claim except wherein said up-link signals from said particular mobile station are measurement signals occurring at a measurement signal rate of 1/T and wherein said processor operates, to generate said measurements at a rate of 1/T, to integrate a plurality of said measurements over an integration length to form integrated measurement reports, to form said integrated measurement reports using said processor information. However, Chavez teaches in an analogous art, that The communication system of claim 1 wherein said up-link signals from said particular mobile station are measurement signals occurring at a measurement signal rate of 1/T and wherein said processor operates, to generate said measurements at a rate of 1/T, to integrate a plurality of said measurements over an integration length to form integrated measurement reports, to form said integrated measurement reports using said processor information. (Col.8; 50 – Col.9; 25)

Regarding claim 18, The above combination disclosed all the particulars of the claim except change time is a multiple of said up-link signal frame rate. However, Chavez teaches in an analogous art, that The communication system of claim 17 wherein said change time is a multiple of said up-link signal frame rate. (Col.5; 61 - Col.6; 4)

Regarding claim 19, The above combination disclosed all the particulars of the claim except wherein said up-link signals from said particular mobile station are measurement signals

occurring at a measurement signal rate of 1/T, wherein said measurement unit in each zone manager operates to generate said unit measurements at a rate of 1/T, wherein said processor means in each zone manager operates, respectively, to generate integrated unit measurement reports by integrating a plurality of said unit measurements, respectively, over an integration length. However, Chavez teaches in an analogous art, that The communication system of claim 15, wherein said up-link signals from said particular mobile station are measurement signals occurring at a measurement signal rate of 1/T, wherein said measurement unit in each zone manager operates to generate said unit measurements at a rate of 1/T, wherein said processor means in each zone manager operates, respectively, to generate integrated unit measurement reports by integrating a plurality of said unit measurements, respectively, over an integration length. (Col.8; 50-Col.9; 25)

Regarding claim 53, The above combination disclosed all the particulars of the claim except change time is approximately an up-link signal frame rate of said up-link signals. However, Chavez teaches in an analogous art, that The communication system of claim 52 wherein said change time is approximately an up-link signal frame rate of said up-link signals. (Col.5; 27-46)

Regarding claim 56, The above combination disclosed all the particulars of the claim except wherein said up-link signals from said particular mobile station are measurement signals occurring at a measurement signal rate of 1/T and wherein said processing operates, to generate said measurements at a rate of 1/T, to integrating a plurality of said measurements over an

integration length to form integrated measurement reports, to form said integrated measurement reports using said processor information. However, Chavez teaches in an analogous art, that The communication system of claim 50 wherein said up-link signals from said particular mobile station are measurement signals occurring at a measurement signal rate of 1/T and wherein said processing operates, to generate said measurements at a rate of 1/T, to integrating a plurality of said measurements over an integration length to form integrated measurement reports, to form said integrated measurement reports using said processor information. (Col.8; 50 – Col.9; 25)

Claims 12, 28, & 39, are rejected under 35 U.S.C. 103(a) as being unpatentable over McLaughlin et al. & Love et al., Worley further in view of Kao.

Regarding claim 12, The above combination disclosed all the particulars of the claim except a controller link having an interface between a base station controller and one of said transceiver stations and one of said zone managers. However, Kao teaches in an analogous art, that The communication system of claim 11 wherein said common location is a base station controller in a cellular system. (Col.6; 15–23) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include a controller link having an interface between a base station controller and one of said transceiver stations and one of said zone managers in order to provide a controller to monitor one or more base stations.

Regarding claim 28, The above combination disclosed all the particulars of the claim except wherein said communication system includes a controller link having an interface

between a base station controller and one of said transceiver stations and one of said zone managers, corresponding to said one of said transceiver stations, is in said controller link. However, Kao teaches in an analogous art, that The communication system of claim 25 wherein said communication system includes a controller link having an interface between a base station controller and one of said transceiver stations and one of said zone managers, corresponding to said one of said transceiver stations, is in said controller link. (Col.6; 15–23)

Regarding claim 39, The above combination disclosed all the particulars of the claim except radio link conditions include path loss. However, Kao teaches in an analogous art, that The communication system of claim 38 wherein said radio link conditions include path loss. (Col.10; 38-46)

Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over McLaughlin et al. & Love et al., Worley further in view of Ueno et al.

Regarding claim 45, The above combination disclosed all the particulars of the claim except wherein said processor information includes priority levels for the communication links with mobiles, timing and synchronization information, transmit power level, and locations of mobile stations. However, Ueno teaches in an analogous art, that The communication system of claim 43 wherein said processor information includes priority levels for the communication links with mobiles, timing and synchronization information, transmit power level, and locations of mobile stations. (Col.16; 31–39) Therefore, it would have been obvious to one of ordinary skill

in the art at the time of invention to include priority levels for the communication links with mobiles in order to provide meta-signaling procedure based on performance.

Response to Remarks

III. Applicant's arguments with respect to claims 1-4, 6-15, 25-28, 30-33, 37-39, 42-43, 45, 49-53, 56-94 has been fully considered but is moot in view of the new ground(s) of rejection.

Conclusion

IV. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharad Rampuria whose telephone number is (571) 272-7870. The examiner can normally be reached on M-F. (8:30-5 EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on (571) 272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000 or *EBC@uspto.gov*.

/Sharad Rampuria/
Patent Examiner
Art Unit 2617